

## SUPPLEMENTAL AMENDMENT UNDER 37 C.F.R. § 1.111

U.S. Appln. No. 09/870,676

REMARKS

Upon entry of the amendment, claims 1, 5, 6, 9-15 and 17-22 are all the claims pending in the application.

Claim 20 has been amended to correct an inadvertent error in which the phrase "which comprises adding" was omitted from the second line of the claim. Entry of this amendment is respectfully requested..

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

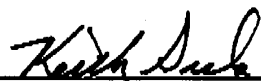
SUGHRUE MION, PLLC  
Telephone: (202) 293-7060  
Facsimile: (202) 293-7860

WASHINGTON OFFICE



23373

PATENT TRADEMARK OFFICE

  
Keith B. Scala  
Registration No. 43,088

Date: June 4, 2003

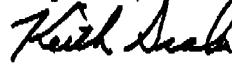
SUPPLEMENTAL AMENDMENT UNDER 37 C.F.R. § 1.111  
U.S. Appln. No. 09/870,676

**CERTIFICATION OF FACSIMILE TRANSMISSION**

Sir:

I hereby certify that the above identified correspondence is being facsimile transmitted to Examiner Zachary C. Tucker at the Patent and Trademark Office on June 4, 2003 at 703-746-3176.

Respectfully submitted,



Keith B. Scala

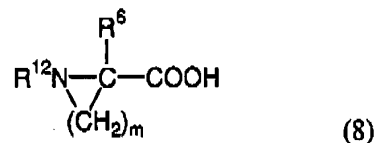
SUPPLEMENTAL AMENDMENT UNDER 37 C.F.R. § 1.111  
U.S. Appl. No. 09/870,676

**APPENDIX**  
**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**IN THE CLAIMS:**

The claims are amended as follows:

Claim 20. (Twice Amended) A method for producing a mixed acid anhydride which comprises adding a cyclic  $\alpha$ -amino acid derivative of formula (8):



wherein m denotes an integer from 1 to 10,  $\text{R}^6$  represents a hydrogen atom or a saturated or unsaturated hydrocarbyl group or a hetero ring, which may be substituted with (a) a hydroxy group or a halogen atom, or (b) at least one group selected from a carbamoyl group, a methylmercapto group, an alkyl (C1-C3) dithio group, of which alkyl is substituted with a protected amino and carboxyl groups, and an amino, mercapto, guanidyl, carboxyl, hydroxy or imidazolyl group,  $\text{R}^{12}$  represents an amino-protecting group or a group of formula:  $\text{R}^{13}\text{CO}-$ , wherein  $\text{R}^{13}$  represents a saturated or unsaturated hydrocarbyl group or a hetero ring, which may be substituted with (c) a hydroxy or a halogen atom, or (e) a group of formula:  $\text{R}^{14}\text{R}^{15}\text{N}-$  and optionally further with at least one group selected from a carbamoyl group, a methylmercapto group, alkyl (C1-C3) dithio group, of which alkyl is substituted with a protected amino and carboxyl groups, an amino, mercapto, guanidyl, carboxyl, hydroxy, or imidazolyl group, wherein  $\text{R}^{14}$  is an amino-protecting group,  $\text{R}^{15}$  represents a hydrogen atom or an amino-protecting group, and  $\text{R}^{14}$  and  $\text{R}^{15}$  may independently form an alkyleneimine group, a 4-pyrimidinone-3-yl group

SUPPLEMENTAL AMENDMENT UNDER 37 C.F.R. § 1.111  
U.S. Appl. No. 09/870,676

or the like, provided that said amino, mercapto, guanidyl, carboxyl, hydroxy and imidazolyl groups which may be present in R<sup>12</sup> and R<sup>6</sup> or substituent groups contained therein are in a protected form, and

an organic base to a solution of a carboxylic acid activating agent of formula (3):



wherein R<sup>2</sup> denotes

a chain, branched or cyclic (C1-C6) alkyl group, which may be substituted with a halogen atom,

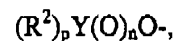
a phenyl which may be substituted with a halogen or (C1-C3) alkyl group,

a chain or cyclic (C1-C6) alkoxy group, or

a phenyl group which may be substituted with a halogen or C1-C3 alkyl group,

Y denotes a carbon atom, a phosphorus atom, or a sulfur atom,

X denotes a fluorine atom, a chlorine atom, a bromine atom, an iodine atom, a cyano group or a group of formula:



wherein R<sup>2</sup> is the same as defined above, n and p are an integer of 1 or 2; and when Y is a carbon atom, n=1 and p=1, when Y is a phosphorous atom, n=1 and p=2, and when Y is sulfur atom, n=2 and p=1 and R<sup>2</sup> denotes an optionally substituted alkyl or aryl group, provided that said amino, mercapto, guanidyl, carboxyl, hydroxy and imidazolyl groups which may be present in R<sup>2</sup> and substituent groups contained therein are in a protected form.